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'Star Wars' Sparks New Campus Debate

Universities Savor Federal Funds but Question Classified Research

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BOSTON—President Reagan's proposed "Star Wars" space-based missile defense system has sparked a new version of one of the most intense campus debates of the 1960s: the role of weapons development and classified research at universities.

This time, the debate has an added dimension because, with many universities feeling a financial squeeze, Star Wars research represents the largest source of federal funds likely to be available for several years.

The result is a painful dilemma on many campuses, where, although many academics are skeptical about becoming closely associated with a system they think is scientifically ill-conceived and dangerous to existing arms-control agreements, some are scrambling for favorable positions in the expected competition for research contracts.

"It's a problem because money is very tight these days," said Cornell University physics professor David Mermin. "It's a serious problem, and people are going to have to cut back."

Issues raised by the debate—including academic freedom, the need for secrecy in national security research and the proper political role of scientists—

lack clear-cut divisions, but in many cases university scientists are pitted against each other or against administrators interested in securing new grants and contracts.

"There is a split," Mermin said. "The administrators came along and said, 'Here's a lot of money,' and the faculty members said, 'Hold on just a minute.'"

The debate also underscores the complex relationship between the federal government and universities, a multibillion-dollar marriage of convenience that during the Reagan administration has been strained over several issues, including:

- The Office of Management and Budget's closer scrutiny of university contracts. The OMB recently denied some schools' claims of costly overhead expenses and forced several schools to give back thousands of dollars.

- The Defense Department's move to restrict publication or presentation of certain sensitive information. In a widely publicized case in April, the Pentagon invoked a provision of the Export Control Act in ordering the sponsor of a technical symposium to restrict the audience to U.S. citizens and to cancel presentation of a dozen classified research papers.

University officials cite this as a case of Pentagon censorship, although a Defense Department official said that it was basically a misunderstanding and that the authors of the classified papers had never received clearance.

- The practice by several federal departments of writing into their contracts clauses giving the agency the right to review research findings before they are published, raising the possibility of censorship.

- The State Department's denying entry visas to certain politically controversial scholars and lecturers, including a Canadian environmentalist, a Mexican leftist writer and the wife of slain Chilean socialist president Salvadore Allende.

- A gradual "militarization" of research money flowing onto college campuses, meaning that the Pentagon accounts for an increasingly large share of federal grants and contracts and that more Pentagon money is directed toward weaponry at the expense of other "basic" or nonmilitary research.

All of these scattered concerns have crystallized recently around Reagan's Strategic Defense Initiative (SDI), popularly dubbed Star Wars.

Generally speaking, the worry on the campuses is that involvement with the SDI is likely to force universities into financial dependency on a politically divisive weapons project that can ultimately become too sensitive to remain a topic of open discussion.

"What is this going to do to freedom of scientific communication?" asked Robert Rosenzweig, president of the American Association of Universities. "We've been assured that this is all going to be basic research, not classified and not restricted. But I think a lot of people are skeptical about this still."

"We don't think anybody is lying to us," he said, "but what lies down the road is success. What if it suddenly becomes apparent that the line of research has some practical application?"

John Shattuck, Harvard's vice president for government, community and public affairs, put it this way: "If it looked like what I was studying was going to become a key part of the 'Star Wars' defense system, the Defense Department could turn around and classify it."

"The big question," Shattuck said, "is will there be classified research conducted on campus?"

Defense Department officials associated with the Star Wars project say fears on the campuses are exaggerated. "I think it's been blown all out of proportion," said Leo Young, the Pentagon's director for research and laboratory management.

Much of the misunderstanding, Young said, stems from the fact that Star Wars money is coming from a Pentagon research category reserved for "advanced develop-

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ment," instead of the category for "basic research" or "exploratory research." Pentagon and university officials have agreed on a policy of controls for research conducted under the latter two categories, but "advanced development" research is subject to tighter control.

Young said that although Star Wars money comes out of the "advanced development" category, officials intend to treat the bulk of the work as basic research.

"There is no intention to control the results of unclassified research contracts done anywhere," Young said. "As for classified work, there would be very little classified work done at universities."

Most major research universities have policies prohibiting classified research on their campuses, a legacy of the Vietnam war era. Most work done on campuses now is of the "basic" or fundamental type rather than research with a specific application.

But when representatives of 52 of the nation's largest research universities sit down in Cambridge, Mass., this fall, the primary topic will be a review of that longstanding policy banning classified research and whether it should be expanded to cover projects, such as Star Wars, which are not classified but are politically sensitive.

The chief political concern is whether universities and scientists who work on Star Wars will be seen as endorsing a project that is highly controversial on Capitol Hill, which must provide the funding. This worry was heightened in April when the Pentagon announced a list of universities "participating" in Star Wars, only to have two of them angrily deny it.

More substantive concerns center on questions of whether the idea of a space shield against nuclear weapons is technologically possible. By some recent calculations, the Star Wars system would require a super-computer conducting a trillion operations per second, a thousand times faster than hardware now available.

A successful defensive blanket would also require a software system consisting of at least 10 million lines of error-free code, vastly longer than anything written so far.

"A lot of scientists think it's absolute crap," Cornell's Mermin said of SDI. "The basis of the opposition is the feeling among most scientists that it's a colossal waste of money."

The opposition to Star Wars among many research scientists became more visible earlier this month, when physicist John Kogut at the University of Illinois at Champaign-Urbana and other scientists at Cor-

nell began circulating petitions asking Congress not to back the project and asserting that they will not accept any Star Wars research projects.

The opposition has spread to other universities and some private research laboratories. It has also spread to Canada, where about 800 scientists are reported to have signed one of four petitions being sent to Prime Minister Brian Mulroney, asking him to refuse to join the effort, according to the Chronicle of Higher Education.

But the opposition is faced with one difficult reality—the increasing "militarization" of government research contracts means that for the near future, Star Wars may be the best and most secure source of federal money available for universities, whose financial life's blood is government contracts.

The military accounts for about two-thirds of the government's proposed 1986 research and development spending. And since the mid-1960s, more of the Pentagon's money has gone into weapons development and less into basic research.

That longstanding shift away from basic research was largely dictated by a 1971 law that said any Pentagon research must have some potential application to defense.

In the fiscal 1986 budget, however, the Defense Department is launching a program to increase basic research at universities by 20 percent, by investing in new equipment and facilities.

Young said he hopes the new program will help ease the strain between the campuses and the Pentagon. "Most of it has been based on misunderstanding," he said. "We've been trying to understand and see each other's points of view. It just takes time to get to know each other and iron out our differences."